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# **NCI** Budget Fact Book

This year's Budget Fact Book provides a summary of the distribution of the Fiscal Year 2018 budget among the various National Cancer Institute (NCI) research programs and funding mechanisms. NCI funding policies related to research grant awards are also provided.

#### **FISCAL YEAR 2018 HIGHLIGHTS**

Funds available to the NCI totaled \$5.94 billion, post inter-departmental and intra-NIH transfers. This reflects an increase of 5% and \$284 million from the previous fiscal year.

- The 21st Century Cures Act, which was signed into law in December 2016, authorized \$1.8 billion to fund the Cancer Moonshot over a 7-year period. The Cancer Moonshot funding received during Fiscal Year 2018 totaled \$300 million.
- Of the total NCI budget obligated, 41.3% of the funds were allocated for Research Project Grants (RPGs).
- The total number of RPGs funded was 4,780 (including grants funded through the Small Business Innovation Research (SBIR) & Small Business Technology Transfer (STTR) programs).
- Over one-fourth of the RPGs awarded were new ("Type 1") or competing renewal ("Type 2") awards.
- There was a total of 1,162 competing RPGs funded (excluding grants funded through SBIR & STTR).
- Almost one-third of the total NCI budget supported ongoing, non-competing ("Type 5") RPGs.
- The R01 grants were funded to the 9th percentile for Experienced and New Investigators and the Early Stage Investigators were funded to the 14th percentile.
- R01 Early Stage Investigators between the 1st and 9th percentiles were converted to R37 awards giving them the opportunity to extend their research an additional 2 years.
- SBIR & STTR awards funded 280 grants totaling \$142.9 million.
- Intramural Research comprised 16% of the total NCI budget.

The dollar amounts displayed in the NCI Budget Fact Book represent direct appropriated funds only, unless otherwise denoted.

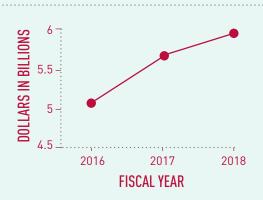
#### Where to Find Information from Previous Fact Books

Information provided in previous Fact Books can now be found online. For example, view NCI's Organization Chart on the NIH Office of Management Assessment website. Cancer statistics can be found on the NCI website, as well as more detailed NCI Organization information. A limited number of Fact Books from prior years are available as hardcopy publications through the NCI Publications Locator. Find PDFs of all the NCI Budget Fact Books, dating back to 1971.

The NCI Budget Fact Book data is organized into the following sections. If you have any questions, please contact the Office of Budget and Finance (OBF).

#### NATIONAL CANCER INSTITUTE

# **Budget At A Glance: Fiscal Year 2018**



NCI BUDGET
INCREASED BY
\$584 MILLION
(10.3%) FROM
FISCAL YEAR 2017

41.3%

OF THE TOTAL

NCI BUDGET

ALLOCATED FOR

RESEARCH

PROJECT GRANTS

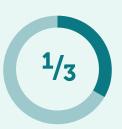
THE NATIONAL CANCER INSTITUTE (NCI)
PROVIDES FUNDING AND SUPPORT FOR
HEALTH-RELATED RESEARCH AND
DEVELOPMENT THROUGH THE RPG (R01)
GRANT MECHANISM.



RO1 GRANTS FUNDED
TO THE **9**<sup>TH</sup> PERCENTILE
FOR EXPERIENCED &
NEW INVESTIGATORS,
AND EARLY STAGE
INVESTIGATORS WERE
FUNDED TO THE **14**<sup>TH</sup> PERCENTILE



OF RPG AWARDS WERE NEW (TYPE 1) OR COMPETING RENEWAL (TYPE 2) AWARDS



OF THE TOTAL
NCI BUDGET
SUPPORTED
ONGOING,
NON-COMPETING
(TYPE 5) RPGs

1,162

NCI-FUNDED COMPETING RPGs



TOTALING OVER \$142.9 MILLION FUNDED AS SMALL BUSINESS INNOVATION RESEARCH (SBIR) AND SMALL BUSINESS TECHNOLOGY TRANSFER (STTR) AWARDS. 4,780

TOTAL NCI-FUNDED RPGs (INCLUDING SBIR & STTR)

cancer.gov
Source: 2018 NCI Budget Fact Book

# **NCI Budget Summary Data**

This section of the NCI Budget Fact Book provides data about funds available to NCI and information on how NCI obligated its funding.

# **Most Recent Reported Fiscal Year Budget**

In FY 2018, Congress passed an Omnibus that appropriated \$5.665 billion for NCI. NCI was also appropriated \$300 million in FY 2018 as a result of the 21st Century Cures Act. After permissive transfers, \$5.944 billion was available to NCI to obligate.

In addition to the appropriated amount for the fiscal year, NCI entered into inter- and intra-agency agreements with other Federal agencies and NIH institutes and centers (ICs). These agreements often provide reimbursements for materials, supplies, equipment, work, or services to assist other agencies and ICs accomplish their missions.

#### **FISCAL YEAR 2018 BUDGET**

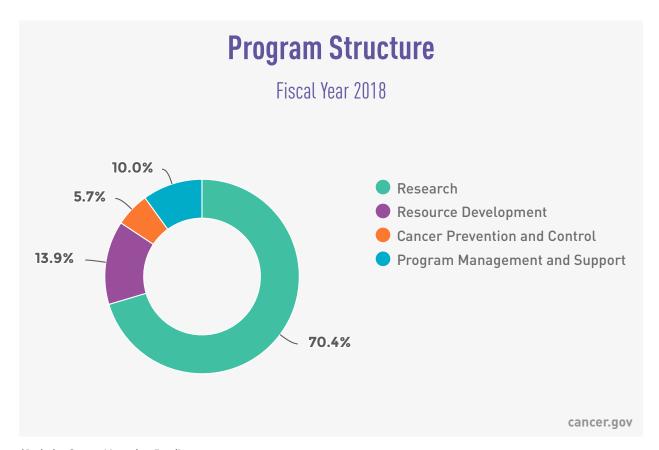
Actual Obligations Resulting From Appropriated Funds	FY 2018 Amount
FY 2018 Appropriation	\$5,664,800,000
FY 2018 Cancer Moonsot Appropriation	\$300,000,000
Transfer under the HHS Secretary's transfer authority	-13,309,000
Transfer from NIH Office of AIDS Research	-7,785,000
Lapse	-250,000
Cancer Moonshot Carryover	-\$15,726,896
Actual Obligations Subtotal	\$5,927,729,104
Reimbursable Obligations	\$19,873,085
Total FY 2018 NCI Obligations	\$5,947,602,189

# **Funding Allocated to Major NCI Program Areas**

Each fiscal year, NCI and other NIH institutes and centers report their obligations by mechanism. In addition to reporting by mechanism, reporting obligations by program structure is another way of showing how NCI obligates its funding each fiscal year.

For the purposes of reporting by program structure, NCI programs are categorized by budget activity. These budget activities include:

- Research categorized by the following research thrusts: cancer causation; detection and diagnosis; treatment; cancer biology
- Resource Development cancer centers, research manpower development, and buildings and facilities
- Cancer Prevention and Control
- Program Management and Support



<sup>\*</sup>Includes Cancer Moonshot Funding

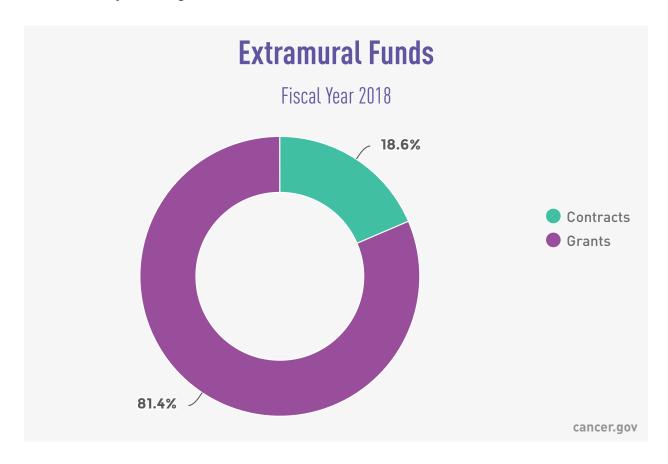
<sup>\*</sup>Excludes FY 2017 Cures-Moonshot carryover obligations.

# **Extramural Funding**

Overall, NCI obligations for its extramural program, which includes grants and contracts, totaled \$4.54 billion in FY 2018.

- Obligations for grants totaled approximately 81.4% of extramural funding
- Obligations for contracts totaled approximately 18.6% of extramural funding
- Overall, extramural obligations amounted to approximately 76.6% of the NCI budget in FY 2018

Obligations on this page include FY 2018 Cancer Moonshot funding and excludes FY 2017 Cancer Moonshot carryover obligations.



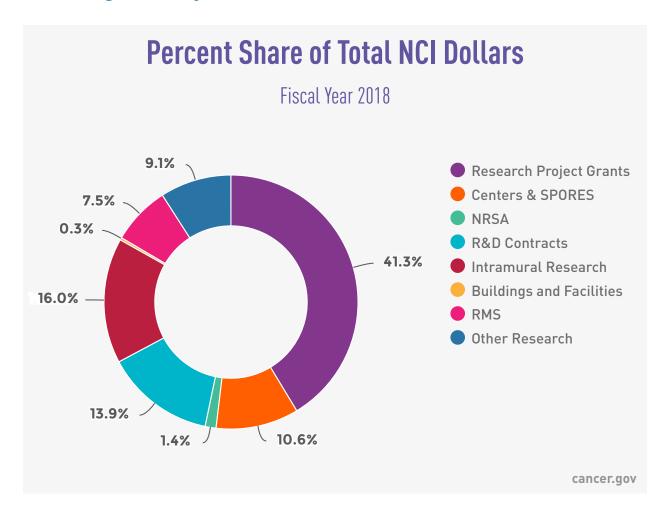
## **EXTRAMURAL FUNDS, FISCAL YEAR 2018**

Mechanism	Amount	Percent
Research & Development (R&D) Contracts	\$825,406,010	18.2%
Buildings and Facilities	18,000,000	0.4%
Construction Contracts	0	0.0%
Subtotal Contracts	\$843,406,010	18.6%
Research Project Grants (RPGs)	2,450,557,744	54.0%
Cancer Centers/Specialized Centers/SPORES	625,575,487	13.8%
NRSA	82,413,198	1.8%
Other Research Grants	537,865,734	11.9%
Subtotal Grants	\$3,696,412,163	81.4%
Total Extramural Funds	\$4,539,818,173	100.0%
Intramural/RMS Funds	1,387,910,931	
Total NCI		\$5,927,729,104

# **Obligations by Budget Mechanism and Division**

All NIH Institutes and Centers report their actual obligations each fiscal year by budget mechanism. The tables below display NCI funding by mechanism and division. The number of awards, trainees, or employees for each mechanism, as well as the dollar amount and percent share of the total NCI budget for each funding mechanism is also included.

## **NCI Obligations by Mechanism**



Other Research mechanisms includes the following grants: Career Programs (K Awards), Cancer Education, Clinical Cooperative Groups, Pre-Doc Post-Doc Transition Awards, Minority Biomedical Research Support, Research Pathway in Residency, Resource Grants, International Research Training grants, Cooperative Conference Agreements, and Conference grants.

All items in italics are non add entries.

<sup>\*</sup>Includes FY 2018 Cures-Moonshot funding.

<sup>\*</sup>Excludes FY 2017 Cures-Moonshot carryover obligations.

## **NCI OBLIGATIONS**

NCI Obligations by Mechanism, FY 2018 (Whole Dollars)

Type of Mechanism	Mechanism	Number	Amount	% of Total Amount
	Non-Competing	3,338	\$1,699,682,348	28.7%
	Administrative Supplements	280	36,754,377	0.6%
	Competing	1,162	571,221,786	9.6%
Research Project Grants (RPGs)	Subtotal, without SBIR/STTR Grants	4,500	\$2,307,658,511	38.9%
	SBIR/STTR Grants	280	142,899,233	2.4%
	Subtotal, RPGs	4,780	\$2,450,557,744	41.3%
	Cancer Centers Grants-P20/P30	91	331,429,940	5.6%
	SPOREs-P50	55	115,829,834	2.0%
Centers & SPOREs	Other P50s/P20s	0	0	0.0%
	Other Specialized Centers	92	178,315,713	3.0%
	Subtotal, Centers	238	\$625,575,487	10.6%
	Career Program			0.0%
Other Research	Post-Doc-Fellow Awards-K00	30	2,293,876	0.0%

Type of Mechanism	Mechanism	Number	Amount	% of Total Amount
	Temin & Minority Mentored Awards-K01/K43	41	5,979,795	0.1%
	Estab. Inv. Award-K-05	5	444,131	0.2%
	Preventive Oncology-K07	73	11,271,537	0.4%
	Clinical Investigator-K08	113	20,858,368	0.2%
	Clinical Oncology-K12	21	14,228,491	0.2%
Other Research	Transitional Career Development-K22	58	10,304,211	0.0%
	Mentored Patient Oriented RCDA-K23	13	2,165,733	0.0%
	Mid-Career Invest. & Patient Orient. Res-K24	13	2,379,742	0.0%
	Mentored Quant. Res Career-K25	6	847,484	0.1%
	Pathway to Independence Awards K99	59	7,564,148	1.3%
	Subtotal, Career Program	432	\$78,337,516	1.3%

Type of Mechanism	Mechanism	Number	Amount	% of Total Amount
	Cancer Education Program-R25 (including BD2K)	76	21,181,892	0.4%
	Clinical Cooperative Groups-U10/UG1	101	255,340,505	4.3%
	PreDoc PostDoc Transition Awards-F99	47	1,769,662	0.0%
	Minority Biomedical Support-S06	0	97,802	0.0%
	Research Pathway in Residency-R38	1	358,020	0.0%
Other Research	Resource Grants-R24/U24	90	179,028,691	3.0%
	Int'l Rsrch Training Grants Conference- D43/U2R		943,987	0.0%
	Cooperative Conference Agreements-U13	2	9,000	0.0%
	Conference Grants-R13	46	798,659	0.0%
	Subtotal, Career and Other Research Grants	795	\$537,865,734	9.1%

Type of Mechanism	Mechanism	Number	Amount	% of Total Amount
Subtotal, Research Grants		5,813	\$3,613,998,965	61.0%
National Research Service Award (NRSA) Fellowships	Trainees	1,532	82,413,198	1.4%
	R&D Contracts	402	752,280,456	12.7%
	SBIR Contracts	45	24,363,729	0.4%
R&D Contracts	NIH Management Fund/SSF Assessment		48,761,825	0.8%
	Subtotal, Contracts	402	\$825,406,010	13.9%
	Program		739,537,951	12.5%
Intramural Research	NIH Management Fund/SSF Assessment		205,957,758	3.5%
	Subtotal, Intramural Research (FTEs)	1,709	\$945,495,709	16.0%
Research	NIH Management Fund/SSF Assessment		101,729,113	1.7%
Management & Support (RMS)	NIH Management Fund/SSF Assessment		101,729,113	1.7%

Type of Mechanism	Mechanism	Number	Amount	% of Total Amount
Research Management & Support (RMS)	Subtotal, RMS (FTEs)	1,243	\$442,415,222	7.5%
Buildings & Facilities			18,000,000	0.3%
Total NCI	(FTEs)	2,952	\$5,927,729,104	100.0%

# **Division Obligations by Mechanism**

#### **DIVISION OBLIGATIONS**

Total Division Obligations, FY 2018

(Whole Dollars)

Division	Total
Center for Cancer Research (CCR)	\$448,457,653
Division of Cancer Epidemiology and Genetics (DCEG)	105,897,928
Division of Cancer Treatment and Diagnosis (DCTD)	529,420,747
Division of Cancer Biology (DCB)	108,920,638
Division of Cancer Control and Population Sciences (DCCPS)	125,506,592
Division of Cancer Prevention (DCP)	196,721,315
Division of Extramural Activities (DEA)	22,575,736
Office of the Director (OD)	1,485,904,925
Total Division	\$3,023,405,534

## **CENTER FOR CANCER RESEARCH (CCR)**

**CCR Obligations** 

Type of Mechanism	Mechanism	Amount
Intramural Research	Program	\$448,457,653
	NIH Management Fund	0
Total CCR		\$448,457,653

## **DIVISION OF CANCER EPIDEMIOLOGY AND GENETICS (DCEG)**

**DCEG Obligations** 

(Whole Dollars)

Type of Mechanism	Mechanism	Amount
R&D Contracts	R&D Contracts	\$26,519,224
NGD CONTRACTS	SBIR Contracts	0
Intramural Research	Program	79,378,704
The arrange Research	NIH Management Fund	0
Total DCEG		\$105,897,928

## **DIVISION OF CANCER TREATMENT AND DIAGNOSIS (DCTD)**

**DCTD Obligations** 

Type of Mechanism	Mechanism	Amount
	Cancer Centers Grants-P20/ P30	\$0
	SPOREs-P50	111,504,723
Centers & SPOREs	Other P50s/P20s	0
	U54s	14,212,588
	Subtotal, Centers	\$125,717,311
Other Research–Grants	Cancer Education Program-R25	0
Other Research-Grants	Clinical Cooperative Groups-U10/UG1	136,773,118

Type of Mechanism	Mechanism	Amount
	Minority Biomedical Support-S06	0
	Sci Eval-U09/T09 & Rsch Enhance-SC1	0
	Continuing Education	0
Other Research–Grants	Resource Grants-R24/U24	0
Other Research-Grants	Explor Coop Agreement-U56	0
	Global Infect. Disease Rsrch Training Prog - D43	0
	Conference Grants-R13/U13	0
	Subtetal Other Decemb	
	Subtotal, Other Research- Grants	\$136,773,118
Subtotal, Research Grants		\$136,773,118 \$262,490,429
Subtotal, Research Grants		
Subtotal, Research Grants  R&D Contracts	Grants	\$262,490,429
	Grants  R&D Contracts	<b>\$262,490,429</b> 211,716,905
	R&D Contracts SBIR Contracts	<b>\$262,490,429</b> 211,716,905
R&D Contracts	R&D Contracts SBIR Contracts Subtotal, Contracts	\$262,490,429 211,716,905 0 \$211,716,905
	R&D Contracts SBIR Contracts Subtotal, Contracts RMS	\$262,490,429 211,716,905 0 \$211,716,905 55,213,413
R&D Contracts	R&D Contracts SBIR Contracts Subtotal, Contracts RMS SBIR RMS	\$262,490,429 211,716,905 0 \$211,716,905 55,213,413 0

# **DIVISION OF CANCER BIOLOGY (DCB)**

DCB Obligations

Type of Mechanism	Mechanism	Amount
	Cancer Centers Grants-P20/ P30	\$0
	SPOREs-P50	0
Centers & SPOREs	Other P50s/P20s	0
	U54s	97,099,895
	Subtotal, Centers	\$97,099,895
Other Research–Grants	Subtotal, Other Research– Grants	\$97,099,895
	RMS	11,820,743
Research Management & Support (RMS)	SBIR RMS	0
	NIH Management Fund	0
	Subtotal, RMS	\$11,820,743
Total DCB		\$108,920,638

## DIVISION OF CANCER CONTROL AND POPULATION SCIENCES (DCCPS)

**DCCPS Obligations** 

Type of Mechanism	Mechanism	Amount
	Cancer Centers Grants-P20/ P30	\$0
	SPOREs-P50	0
	Other P50s/P20s	0
	U54s	475,000
	Subtotal, Contracts	\$475,000
	Cancer Education Program-R25	
	Clinical Cooperative Groups-U10/UG1	679,899
Centers & SPOREs	PreDoc PostDoc Transition Awards-F99	
	Minority Biomedical Support-S06	
	Research Pathway in Residency-R38	
	Resource Grants-R24/U24/ U2C	700,000
	Global Infect. Disease Rsrch Training Prog - D43/U2R	
	Cooperative Conference Agreements-U13	
	Conference Grants-R13	

Type of Mechanism	Mechanism	Amount
Centers & SPOREs	Subtotal, Other Research Grants	\$1,453,149
	Subtotal, Research Grants	\$1,928,149
	R&D Contracts	88,479,872
R&D Contracts	SBIR Contracts	0
	Subtotal, Contracts	\$88,479,872
	RMS	35,098,571
Decears Management & Compart (DMC)	SBIR RMS	0
Research Management & Support (RMS)	NIH Management Fund	0
	Subtotal, RMS	\$35,098,571
Total DCCPS		\$125,506,592

## **DIVISION OF CANCER PREVENTION (DCP)**

DCP Obligations

Type of Mechanism	Mechanism	Amount
Centers & SPOREs	Cancer Centers Grants-P20/ P30	\$0
	SPOREs-P50	0
	Other P50s/P20s	0
	U54s	2,346,784

Type of Mechanism	Mechanism	Amount
Centers & SPOREs	Subtotal, Centers	\$2,346,784
	Cancer Education Program-R25	0
	Clinical Cooperative Groups-U10/UG1	112,164,519
	Minority Biomedical Support-S06	0
	Sci Eval-U09/T09 & Rsch Enhance-SC1	0
Other Research–Grants	Continuing Education	0
	Resource Grants-R24/U24	0
	Explor Coop Agreement-U56	0
	Global Infect. Disease Rsrch Training Prog - D43	0
	Conference Grants-R13/U13	0
	Subtotal, Other Research Grants	\$112,164,519
Subtotal, Research Grants		\$114,511,303
	R&D Contracts	56,472,670
R&D Contracts	SBIR Contracts	0
	Subtotal, Contracts	\$56,472,670
Research Management & Support (RMS)	RMS	25,737,342

Type of Mechanism	Mechanism	Amount
	SBIR RMS	0
Research Management & Support (RMS)	NIH Management Fund	0
	Subtotal, RMS	\$25,737,342
Total DCP		\$196,721,315

## **DIVISION OF EXTRAMURAL ACTIVITIES (DEA)**

**DEA Obligations** 

(Whole Dollars)

Type of Mechanism	Mechanism	Amount
	RMS	\$22,575,736
Research Management & Support (RMS)	SBIR RMS	0
	NIH Management Fund	0
Total DEA		\$22,575,736

## OFFICE OF THE DIRECTOR (OD)

**OD Obligations** 

Type of Mechanism	Mechanism	Amount
Research Project Grants (RPGs)	Non-Competing	\$0
	Administrative Supplements	0

Type of Mechanism	Mechanism	Amount
Research Project Grants (RPGs)	Competing	0
	Subtotal, without SBIR/ STTR Grants	\$0
	SBIR/STTR Grants	142,899,233
	Subtotal, RPGs	\$142,899,233
	Cancer Centers Grants-P20/ P30	331,429,940
	SPOREs-P50	4,325,111
Centers & SPOREs	Other P50s/P20s	0
	U54s	64,181,446
	Subtotal, Centers	\$399,936,497
	Career Program	0
	Post-Doc-Fellow Awards-K00	2,293,876
	Temin & Minority Mentored Awards-K01	5,979,795
Other Research, Career Program	Estab. Inv. Award-K05	444,131
Other Research–Career Program	Preventive Oncology-K07	11,271,537
	Clinical Investigator-K08	20,858,368
	Clinical Oncology-K12	14,228,491
	Transitional Career Development-K22	10,304,211

Type of Mechanism	Mechanism	Amount
	Mentored Patient Oriented RCDA-K23	2,165,733
	Mid-Career Invest. & Patient Orient. Res-K24	2,379,742
Other Research–Career Program	Mentored Quant. Res Career-K25	847,484
	Pathway Award-K99	7,564,148
	Subtotal, Career Program	\$78,337,516
	Cancer Education Program-R25	21,181,892
	Clinical Cooperative Groups-U10/UG1	5,723,969
	Minority Biomedical Support-S06	1,769,662
	Sci Eval-U09/T09 & Rsch Enhance-SC1	0
Other Research–Grants	Continuing Education	0
	Resource Grants-R24/U24	0
	Explor Coop Agreement-U56	0
	Global Infect. Disease Rsrch Training Prog - D43	0
	Conference Grants-R13/U13	0
	Subtotal, Other Research– Grants	\$28,675,523

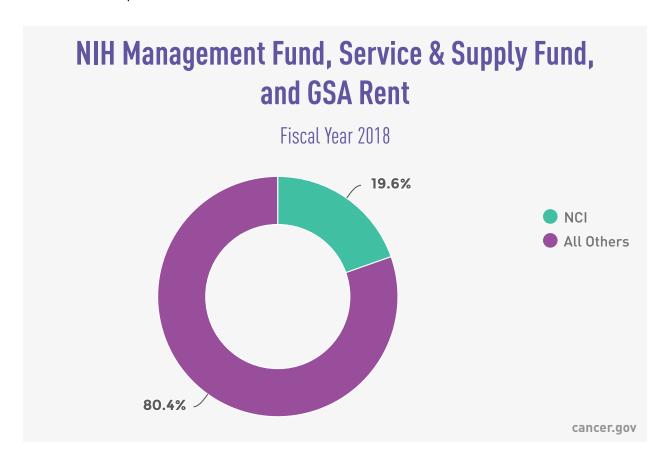
Type of Mechanism	Mechanism	Amount
Subtotal, Research Grants		\$649,848,769
NRSA Fellowships		82,413,198
	R&D Contracts	314,126,912
	SBIR Contracts	24,363,729
R&D Contracts	NIH Management Fund/ SSF Assessment/Program Evaluation	0
	Subtotal, Contracts	\$338,490,641
	Program	211,701,594
Intramural Research	NIH Management Fund/ SSF Assessment/Program Evaluation	0
	Subtotal, Intramural Research	\$211,701,594
	RMS	190,240,303
	SBIR RMS	0
Research Management & Support (RMS)	NIH Management Fund/ SSF Assessment/Program Evaluation	0
	Subtotal, RMS	\$190,240,303
Buildings and Facilities		18,000,000
Total OD		\$1,485,904,925

# NIH Management Fund, Service and Supply Fund (SSF), and GSA Rent

The Management Fund provides for the financing of certain common research and administrative support activities which are required in the operations of NIH:

- **Clinical Center**: Admissions and follow-up, anesthesiology, diagnostic x-ray, nuclear medicine, clinical pathology, blood bank, rehabilitation medicine, pharmacy, medical records, nursing services, patient nutrition services, housekeeping services, laundry, social work, drug costs, red team response and bench to bedside.
- **Center for Scientific Review**: Initial scientific review of applications and assignment of research grant applications to institutes.
- **Center for Information Technology**: Research and development program in which concepts and methods of computer science are applied to biomedical problems.
- **Other Research Services**: Procurement, safety, engineering, biomedical engineering, veterinary resources, and library services.
- **Service & Supply Fund**: Mainframe computing, enterprise IT software planning and development, engineering planning and design, printing, telecommunications, procurement, shipping and receiving, motor pool, research animals, fabrication and maintenance of scientific equipment, utilities and plant maintenance, biomedical engineering, and GSA rental payments for space (to include all building rental costs, including utilities and guard services).

The chart and table below show the distribution of NCI's payment for these common activities and NCI's share as a percent of NIH total.



## NIH MANAGEMENT FUND, SSF, AND GSA RENT FY 2018

(Whole Dollars)

Distribution of NCI Payment	Amount	Share of NCI
Clinical Center	\$137,441,910	37.2%
Center for Scientific Review	26,186,932	7.1%
Center for Information Technology	7,509,131	2.0%
Service & Supply Fund Assessment (SSF)	184,485,965	50.0%
Other Research Services	13,703,703	3.7%
Other OD	0	0.0%
Total NCI Management Fund & SSF	\$369,327,642	100%

#### **MANAGEMENT FUND & SSF SUBTOTALS**

Туре	Amount	Percent
NCI	\$369,327,642	19.6%
Other NIH Institutes	\$1,512,273,171	80.4%
Total NIH Management Fund & SSF	\$1,881,600,813	100%

# **Special Sources of Funds**

## **Cooperative Research and Development Agreements (CRADAs)**

As a result of the Federal Technology Transfer Act of 1986 (PL 99-502), government laboratories are authorized to enter into Cooperative Research and Development Agreements (CRADAs) with private sector entities. Under a CRADA, the NIH laboratory can provide personnel, services, facilities, equipment or other resources and the collaborator can provide funds, personnel, services, facilities, equipment or other material and/or technical resources. Importantly, the CRADA provides the non-Federal party the option to negotiate an exclusive license to the resultant CRADA Subject Invention(s). The CRADA is the primary legal mechanism the Federal government has to convey such rights in advance of an invention. The agreement has no mandatory length but often are written for 1 to 3 years, renewable at the mutual agreement of the parties.

#### CRADA RECEIPTS DEPOSITED TO THE U.S. TREASURY

(Dollars in Thousands)

Fiscal Year	Carryover from Prior Year	Collections	Obligations
2005	10,962	6,858	4,253
2006	13,567	6,142	7,125
2007	12,584	9,410	8,360
2008	13,634	6,677	7,200
2009	13,111	5,466	4,765
2010	13,813	5,024	5,644
2011	13,150	8,582	5,894
2012	15,504	9,253	5,668
2013	10,587	11,226	8,470
2014	21,173	9,334	5,672
2015	24,835	15,772	11,670

Fiscal Year	Carryover from Prior Year	Collections	Obligations
2016	28,276	23,411	17,259
2017	40,647	27,033	20,990
2018	46,311	28,601	22,936

#### **Royalty Income**

NCI retains a portion of the royalty income generated by the patents related to NCI-funded research. A major portion of this royalty income is used to support employees of the laboratory, further scientific exchange, and provide education and training in accordance with the terms of the Federal Technology Transfer Act (PL 99-502). Receipts are also used to support costs associated with processing and collecting royalty income and for technology transfer efforts at NCI and NIH. Royalties may be spent in the year of receipt and for two additional fiscal years.

#### NCI ROYALTY INCOME FUNDING HISTORY

(Dollars in Thousands)

Years	Collections*	Inventor Payments	Other Obligations
2006/2008	29,811	6,853	22,958
2007/2009	36,344	7,210	29,134
2008/2010	50,269	8,192	42,077
2009/2011	51,621	10,225	41,396
2010/2012	58,515	5,729	52,786
2011/2013	69,155	23,271	45,884
2012/2014	84,876	33,279	51,597

Years	Collections*	Inventor Payments	Other Obligations
2013/2015	91,324	48,433	42,891
2014/2016	112,668	33,487	79,181
2015/2017	122,037	30,605	91,432
2016/2018	115,096	27,316	87,780
**2017/2019	112,611	26,130	86,481
**2018/2020	85,815	28,060	57,755

<sup>\*</sup> Collections do not inclue assessments by NIH.

<sup>\*\* 2017/2019</sup> and 2018/2020 Inventor Payments and Other Obligations are estimates.

#### **Stamp Out Breast Cancer Act**

The Stamp Out Breast Cancer Act (PL 105-41) was established in August 1997 and has since been extended in July 2000 (PL 106-253), November 2005 (PL 109-100), December 2007 (PL 110-150), December 2011 (PL 112-80), and in December 2015 (PL 114-99). This act allows postal customers the opportunity to contribute funds to breast cancer research through their voluntary purchases of special rate postage stamps from the U.S. Postal Service (USPS). Of the funds collected above the postage costs and administrative costs, the Act requires the USPS to transfer 70% to NIH and 30% to the Department of Defense. As of September 2018, NCI has received \$60,715,903. NCI uses these funds for research projects directed towards breast cancer research. Thus far, five major programs have been funded, including the Insight Awards to Stamp Out Breast Cancer, the Breast Cancer Research Stamp Exceptional Opportunities Program, the Breast Cancer Premalignancy Program, a clinical trial to determine the risk of breast cancer recurrence, and the Molecular and Cellular Characterization of Screen Detected Lesions Consortium. In FY 2018, \$5,348,964 million in Stamp funds were obligated towards Breast Cancer research.

#### NCI BREAST CANCER STAMP FUNDING HISTORY

(Dollars in Thousands)

FY	Collected	Obligated	*Balance
1999	4,150	0	4,150
2000	3,101	3,499	3,753
2001	5,556	4,846	4,463
2002	3,595	1,129	6,929
2003	5,176	3,130	8,975
2004	4,814	3,472	10,317
2005	4,372	2,987	11,703
2006	4,468	6,896	9,274
2007	3,006	1,601	10,679
2008	4,856	2,122	13,413

FY	Collected	Obligated	*Balance
2009	3,403	1,873	14,944
2010	2,345	2,590	14,698
2011	2,049	1,977	14,770
2012	1,623	1,654	14,738
2013	1,404	1,337	14,805
2014	1,160	1,477	14,488
2015	1,251	1,635	14,105
2016	1,707	1,654	14,158
2017	1,387	1,640	13,905
2018	1,294	5,349	9,850

 $<sup>\</sup>boldsymbol{\ast}$  Balance includes carryover funds from the prior fiscal year not obligated.

# **Funding for Research Areas**

The National Cancer Institute reports how appropriated funds are spent based on different categories or classifications, including specific cancer sites, cancer types, diseases related to cancer, as well as types of NCI research mechanisms. The table below identifies funding levels for frequently requested areas of cancer research.

The research areas in this table do not represent the entire NCI research portfolio. Moreover, funding for research areas often overlap, and therefore the total for all research areas does not add to the total NCI budget. For example, funding for a clinical trial on breast cancer would be included in both the Breast Cancer and the Clinical Trials lines in the table below. Similarly, a basic cancer research project may be relevant to cervical, uterine, and ovarian cancers, and relevant amounts would be included in the amounts for all three areas of cancer research.

#### **FUNDING BY RESEARCH AREAS**

(Dollars in Millions)

Disease Area	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Total NCI Budget	\$5,067.3	\$4,789.0	\$4,932.4	\$4,952.6	\$5,206.2	\$5,636.4
AIDS	271.7	261.6	269.2	269.7	266.4	249.0
Brain & CNS	177.5	176.8	180.4	204.8	196.3	219.8
Breast Cancer	602.9	559.2	528.5	543.6	519.9	545.1
Cervical Cancer	72.6	63.5	71.1	57.1	65.6	68.0
Clinical Trials	753.7	676.5	749.8	748.0	801.0	806.6
Colorectal Cancer	256.3	239.0	223.0	209.3	212.2	208.4
Head & Neck Cancers	71.1	40.6	57.1	60.2	58.9	63.6
Hodgkin Disease	15.6	14.7	15.4	13.6	12.8	13.0
Leukemia	234.7	235.3	236.7	246.9	241.0	250.5

Disease Area	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Liver Cancer	64.6	64.5	60.0	70.3	75.7	72.7
Lung Cancer	315.1	287.6	254.1	255.8	283.8	320.6
Melanoma	121.2	122.7	126.2	132.8	142.9	153.2
Multiple Myeloma	61.3	45.5	46.6	48.9	52.1	60.7
Non-Hodgkin Lymphoma	119.5	113.9	118.0	122.4	116.7	119.5
Ovarian Cancer	111.7	101.0	91.5	92.8	95.6	109.8
Pancreatic Cancer	105.4	102.0	122.4	125.3	152.6	178.3
Prostate Cancer	265.1	256.3	217.8	228.9	241.0	233.0
Stomach Cancer	12.1	11.2	11.3	13.5	13.3	13.4
Uterine Cancer	19.1	17.9	15.5	13.0	16.8	17.5

The figures in this table were created using NCI's coding methodology. More information about this methodology, as well as the research projects associated with these and other disease area categories, are available on the NCI Funded Research Portfolio website.

The FY 2017 funds available to the NCI totaled \$5,636.4 billion (includes \$300 million in CURES Act funding), reflecting a increase of 7 percent, or \$368 million from the previous fiscal year. Under the NCI RPG funding policy for FY 2017, non-competing grants were awarded at 100 percent of the committed level. For more information on NCI's grant funding policy, visit the NCI Division of Extramural Activities website.

## **NCI Extramural Programs**

The NCI uses most of its budget to fund extramural grants and contracts. The following links provide information about Fiscal Year 2018 extramural funding by grant activity, institution, state, and country.

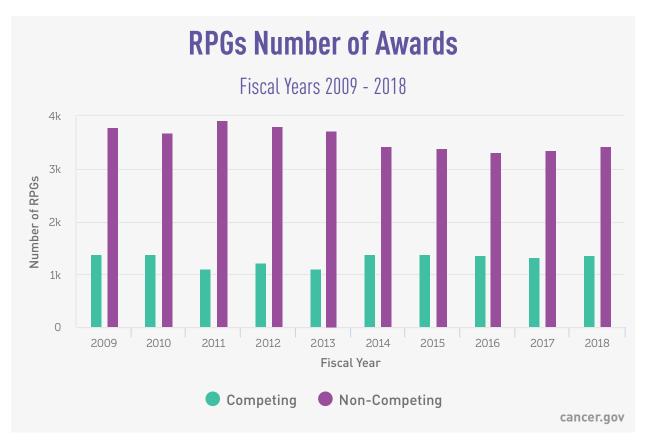
## **Research Project Grants (RPGs)**

During fiscal year 2018,

- Over 72.4% of competing dollars supported grants awarded within the established payline and RFAs and the remainder supported grants as an exception to the fundable range.RFA funds accounted for 16.9% of the FY 2017 competing dollars.
- RFA funds accounted for 18.8% of the FY 2018 competing dollars.
- A total of 1,162 competing RPGs were funded.

FY 2018 data on this page includes FY 2018 Cures-Moonshot funding and excludes FY 2017 Cures-Moonshot carryover obligations.

#### **Number of RPG Awards**



<sup>\*</sup>Includes Small Business Innovation Research and Small Business Technology Transfer Awards.

## **RPGs Summary, FY 2017-2018**

#### **RPG AWARDS FUNDED**

(Dollars in Thousands)

RPG Awards Funded	2017 Number	2017 Amount	2018 Number	2018 Amount
Total Funding for RPGs	4,663	\$2,278,416	4,780	\$2,450,558
SBIR/STTR	238	\$125,636	280	\$142,899
Funding for RPGs without SBIR/STTR Program	4,425	\$2,152,780	4,500	\$2,307,659
Continuation or Noncompeting Grants Funded	3,286	\$1,500,855	3,338	\$1,615,654
Competing Grants Funded	1,139	\$535,521	1,162	\$571,222
Administrative Supplements	243	\$33,173	280	\$36,754
Partial Assessment for DHHS Program Evaluation		\$83,232		\$84,028

#### **FUNDS SET ASIDE WITHIN COMPETING DOLLARS**

(Dollars in Thousands)

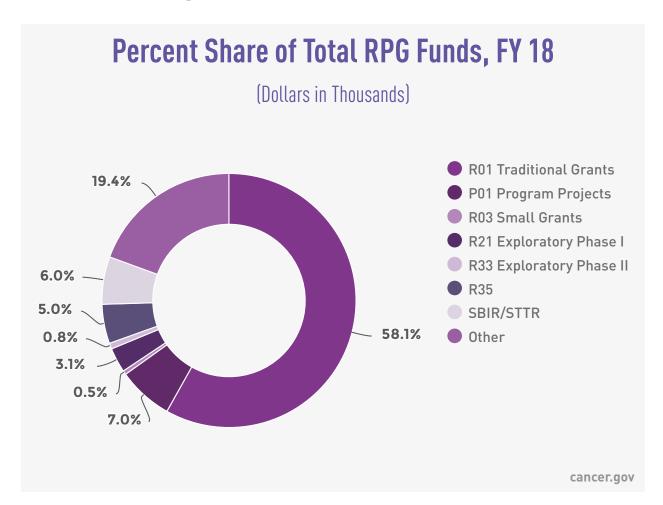
Grant Category	R01 or Share	2017 Number or %	2017 Amount	2018 Number or %	2018 Amount
Grants within Paylines		772	\$300,349	841	\$326,426
	Traditional R01	570	\$265,943	534	\$250,668

Grant Category	R01 or Share	2017 Number or %	2017 Amount	2018 Number or %	2018 Amount
RFA Grants		145	\$90,579	115	\$107,311
	Share of Competing Grant Funds	16.9%		18.8%	
Exception Grants		367	\$235,172	321	\$244,796
	Share of Competing Grant Funds	43.9%		42.9%	

#### **COMPETING RPGS**

Statistical Measure	2017	2018			
Total Competing Application Requests*	9,704	10,317			
Funding Success Rate	12%	11%			
Percentile Funding for R01 Grants	10th and 12th	9th & 14th			
Average Cost-Competing	\$470	\$492			
Average Reduction from Recommended/ Requested Levels	-14%	-13%			
*Excludes SBIR/STTR					

## **RPGs Funding Mechanisms**



The "Other" category includes DP1, DP2, DP5, R00, R37, U01, U19, UH2, UH3, UG3, UA5, R50, UM1, R15, R55, R56, and RC2 activities.

#### **GRANT FUNDING PAYLINES**

RPG Mechanism	2017	2018	Description
R01 Traditional Grants	10th & 12th	9th & 14th	Percentile
P01 Program Projects*	17% Reduction	17% Reduction	SPL Selected*
R03 Small Grants	25	25	Impact Score
R15 Academic Research	25	25	Impact Score
R21 Exploratory Phase I	7th	7th	Percentile
R33 Exploratory Phase II*	N/A	N/A	SPL Selected*
R41/R42 STTR	21	25	Impact Score
R43/R44 SBIR	25	27	Impact Score

\*SPL = Scientific Program Leaders (NCI)

## **RPGs Requested and Awarded**

The following table displays requested and awarded RPGs and the success rate for fiscal years 2017 and 2018. These numbers include Small Business Innovation Research (SBIR) and Small Business Technology Transfer (SBTT) awards. The Download the Data link contains data for the prior ten years.

#### RPGS REQUESTED, AWARDED, AND SUCCESS RATE

(Dollars in Thousands)

Fiscal Year	Туре	Number Requested	Amount Requested	Number Awarded	Amount Awarded	Success Rate	
	Competing New	10,354	\$4,504,710	1,172	\$514,490		
	Competing Renewal	518	364,485	136	96,512		
2047	Competing Supplement	21	7,444	3	1,131	42.00/	
2017	Competing Subtotal	10,893	4,876,638	1,311	612,133	12.0%	
	Non- Competing			3,352	1,666,283		
	FY 2017 RPG Total			4,663	\$2,278,416		
	Competing New	10,921	\$4,914,256	1,220	\$546,677		
2018	Competing Renewal	471	327,711	134	96,208	11.9%	
	Competing Supplement	33	8,382	2	331		

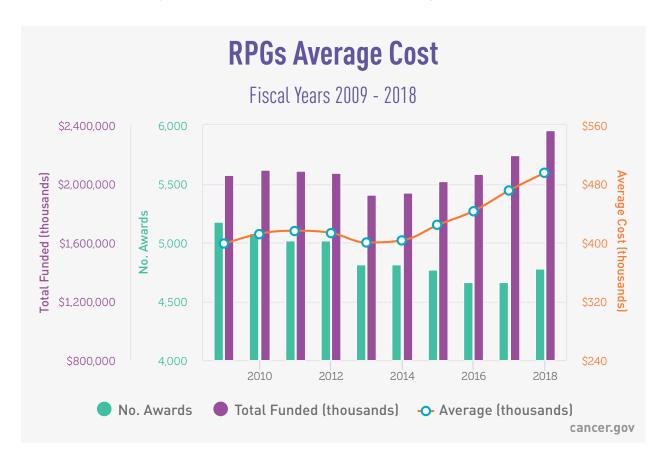
Fiscal Year	Туре	Number Requested	Amount Requested	Number Awarded	Amount Awarded	Success Rate
	Competing Subtotal	11,425	5,250,349	1,356	643,216	
2018	Non- Competing			3,424	1,807,342	11.9%
	FY 2018 RPG Total			4,780	\$2,450,558	

Includes Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) Awards.

Success rate is the number of awarded grants divided by the number of awards requested.

## **RPG Awards by Grant Activity Codes**

This table displays awarded research project grants (RPG) data by grant activity code and count. Please visit NIH Activity Codes for more information on the descriptions.



#### RPG AWARDS BY GRANT CODES, FY 2017-2018

(Dollars in Thousands)

Grant Code	2017 Number	2017 Amount	2018 Number	2018 Amount
R01	3,074	\$1,328,242	3,092	\$1,375,890
DP1	3	3,620	2	2,388
DP2	0	174	1	2,711
DP5	7	2,882	6	2,494

Grant Code	2017 Number	2017 Amount	2018 Number	2018 Amount
P01	90	169,753	85	165,529
R00	109	26,551	103	24,704
R37	2	955	66	30,163
U01	237	201,670	285	243,522
U19	3	6,577	2	5,087
UH2	19	4,953	7	1,408
R35	105	96,338	125	118,267
R50	49	8,430	63	10,559
UH3	6	5,723	21	11,275
UA5	0	0	0	0
UM1	23	65,150	33	110,404
UG3	8	3,268	11	5,574
R03	138	10,796	149	12,227
R21	472	91,406	382	74,013
R33	57	33,586	45	17,863
R15	20	8,559	20	8,951
R55	0	0	0	0
R56	3	917	2	602
RC2	0	0	0	0
SBIR/STTR	238	125,636	280	142,899

Grant Code	2017 Number	2017 Amount	2018 Number	2018 Amount
Total	4,663	2,195,184	4,780	2,366,530

<sup>\*</sup>From FY 2017 onward, RFAs will be accounted for in the actual grant mechanism categories under which they fall.

<sup>\*</sup>RPG Activity Codes with a "0" count displayed for No. are grants where NCI did not take the grant award count for the funding since NCI was not the Primary IC funding the award.

## **Grants to NCI-Designated Cancer Centers**

NCI-designated cancer centers are institutions dedicated to research to develop more effective approaches to prevent, diagnose, and treat cancer. Find an NCI designated cancer center near you and learn about its patient services and research capabilities.

Grant count and amounts include FY 2018 Cancer Moonshot funding and excludes FY 2017 Cancer Moonshot obligations.

#### NCI-DESIGNATED CANCER CENTER TOTALS, FY 2018

(Dollars in Thousands)

Mechanism	Count	Amount
Total P30s	70	\$313,711
Planning Grants (P20s)	21	5,619
Other P20, P30 & U41*	0	12,099
Total Cancer Centers	91	\$331,430

<sup>\*</sup>Per the National Institutes of Health's Office of Extramural Research (OER) "Count Rules" & guidelines policy, updated each fiscal year with limits based on the cost center and division; this category is to be reported as zero.

## NCI-DESIGNATED CANCER CENTERS BY STATE (P30 CORE GRANTS), FY 2018

(Dollars in Thousands)

State	Grantee Institution	Code	Count	Amount
Alabama	University of Alabama at Birmingham	Comprehensive Core	1	\$5,513
Arizona	University of Arizona	Comprehensive Core	1	4,283
	Burnham Institute for Medical Research	Basic Core	1	4,086
	City of Hope/ Beckman Research Institute	Comprehensive Core	1	3,408
	Salk Institute for Biological Studies	Basic Core	1	3,093
California	Stanford University	Comprehensive Core	1	3,755
California	University of California Davis	Comprehensive Core	1	3,628
	University of California Irvine	Comprehensive Core	1	2,317
	University of California Los Angeles	Comprehensive Core	1	4,295
	University of California San Diego	Comprehensive Core	1	4,267

State	Grantee Institution	Code	Count	Amount
California	University of California San Francisco	Comprehensive Core	1	8,419
	University of Southern California	Comprehensive Core	1	6,309
Colorado	University of Colorado Denver	Comprehensive Core	1	4,360
Connecticut	Yale University	Comprehensive Core	1	5,090
District of Columbia	Georgetown University	Comprehensive Core	1	2,556
Florida	H. Lee Moffitt Cancer Center & Research Institute	Comprehensive Core	1	3,236
Georgia	Emory University	Comprehensive Core	1	3,081
Hawaii	University of Hawaii at Manoa	Clinical Core	1	1,914
Illinois	Northwestern University at Chicago	Comprehensive Core	1	7,175
	University of Chicago	Comprehensive Core	1	4,653
Indiana	Indiana Univ- Purdue Univ at Indianapolis	Clinical Core	1	2,434

State	Grantee Institution	Code	Count	Amount
Indiana	Purdue University West Lafayette	Basic Core	1	1,860
Iowa	University of Iowa	Comprehensive Core	1	2,899
Kansas	University of Kansas Medical Center	Clinical Core	1	3,075
Kentucky	University of Kentucky	Clinical Core	1	2,808
Maine	Jackson Laboratory	Basic Core	1	2,250
	Johns Hopkins University	Comprehensive Core	1	7,328
Maryland	University of Maryland Baltimore	Comprehensive Core	1	2,466
	Dana-Farber Cancer Institute	Comprehensive Core	1	12,710
Massachusetts	Massachusetts Institute of Technology	Basic Core	1	3,573
Michigan	University of Michigan at Ann Arbor	Comprehensive Core	1	7,556
	Wayne State University	Comprehensive Core	1	3,263

State	Grantee Institution	Code	Count	Amount
	Mayo Clinic in Rochester	Comprehensive Core	1	6,137
Minnesota	University of Minnesota Twin Cities	Comprehensive Core	1	4,072
Missouri	Washington University	Comprehensive Core	1	4,904
Nebraska	University of Nebraska Medical Center	Clinical Core	1	2,075
New Hampshire	Dartmouth College	Comprehensive Core	1	3,447
New Jersey	Rutgers Cancer Institute of New Jersey	Comprehensive Core	1	2,946
New Mexico	University of New Mexico	Comprehensive Core	1	3,349
	Albert Einstein College of Medicine Yeshiva University	Clinical Core	1	3,646
New York	Cold Spring Harbor Laboratory	Basic Core	1	4,371
	Columbia University Health Sciences	Comprehensive Core	1	5,310

State	Grantee Institution	Code	Count	Amount
	Ichan School of Medicine at Mount Sinai	Clinical Core	1	2,848
Now York	Memorial Sloan- Kettering Institute for Cancer Res	Comprehensive Core	1	13,257
New York	New York University School of Medicine	Clinical Core	1	2,636
	Roswell Park Cancer Institute Corp	Comprehensive Core	1	4,327
	Duke University	Comprehensive Core	1	6,192
North Carolina	University of North Carolina Chapel Hill	Comprehensive Core	1	7,655
	Wake Forest University Health Sciences	Comprehensive Core	1	2,619
Ohio	Case Western Reserve University	Comprehensive Core	1	5,936
	Ohio State University	Comprehensive Core	1	4,973
Oklahoma	University Of Oklahoma Health Sciences Center	Clinical Core	1	2,477

State	Grantee Institution	Code	Count	Amount
Oregon	Oregon Health and Science University	Comprehensive Core	1	2,783
	Fox Chase Cancer Center	Comprehensive Core	1	2,758
	Thomas Jefferson University	Clinical Core	1	3,113
Pennsylvania	University of Pennsylvania	Comprehensive Core	1	8,082
	University of Pittsburgh at Pittsburgh	Comprehensive Core	1	5,379
	Wistar Institute	Basic Core	1	2,846
South Carolina	Medical University of South Carolina	Clinical Core		2,343
Tannagga	St. Jude Children's Research Hospital	Comprehensive Core	1	6,122
Tennessee	Vanderbilt University	Comprehensive Core	1	6,502
Texas	Baylor College of Medicine	Comprehensive Core	1	3,203
	University of Texas M.D. Anderson Cancer Center	Comprehensive Core	1	10,405

State	Grantee Institution	Code	Count	Amount
Texas	University of Texas San Antonio Health Science Center	Clinical Core	1	2,153
	University of Texas Southwestern Medical Center	Comprehensive Core	1	2,729
Utah	University of Utah	Clinical Core	1	3,300
	University of Virginia Charlottesville	Comprehensive Core	1	3,288
Virginia	Virginia Commonwealth University	Clinical Core	1	2,592
Washington	Fred Hutchinson Cancer Research Center	Comprehensive Core	1	10,264
Wisconsin	University of Wisconsin	Comprehensive Core	1	5,008
Total Cancer Centers			70	\$313,010

# **Specialized Programs of Research Excellence** (SPOREs)

In 1992, the NCI established the Specialized Programs of Research Excellence (SPORE). Each SPORE focuses on a specific organ site, such as breast or lung cancer, or on a group of highly related cancers, such as gastrointestinal cancers. SPOREs are designed to enable the rapid and efficient movement of basic scientific findings into clinical settings, as well as to determine the biological basis for observations made in individuals with cancer or in populations at risk for cancer. Total funding shown represents the SPORE program using relevant P50s, P20s, U54s, and co-funded grants external to NCI.

The Translational Research Program (TRP) is the home of the SPOREs, a cornerstone of NCI's efforts to promote collaborative, interdisciplinary translational cancer research. SPORE grants involve both basic and clinical/applied scientists, and support projects that will result in new and diverse approaches to the prevention, early detection, diagnosis, and treatment of human cancers. For more information on these SPORE grants and organ sites, please visit the Translational Research Program.

NCI's Center to Reduce Cancer Health Disparities (CRCHD) is home to the P20 SPORE grants. These P20 grants support feasibility and planning activities to build research programs addressing cancer health disparities as a cross-cutting research theme. For more information on these SPORE grants, please visit the CRCHD's Funding Opportunities for Research and Training page.

The NCI Funded Research Portfolio (NFRP) web site contains additional information about the SPORE grants listed below that have been funded by NCI. The NFRP provides access to various NCI budget reports that contain information about research funding according to specific research categories. For more detailed information on all SPORE grants, please visit the NCI Funded Research Portfolio.

#### FY 2018 FUNDING FOR SPORE GRANTS

(Whole Dollars)

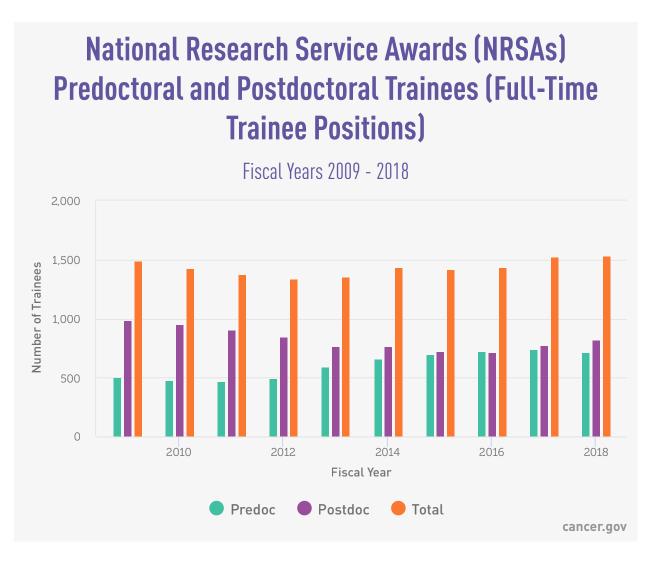
Mechanism	Site	Amount
	Bladder	\$3,462,446
	Brain	9,398,496
	Breast	8,385,586
	Cervical	2,251,770
	Endometrial	2,460,692
	Gastrointestinal (GI)	5,000,000
	Head and Neck	1,950,000
	Hepatobiliary	2,300,000
	Kidney	4,600,000
P50 SPOREs	Leukemia	6,059,026
	Lung	7,168,934
	Lymphoma	9,549,373
	Myeloma	2,538,499
	Neuroendocrine	2,300,000
	Ovarian	8,356,367
	Pancreatic	6,897,971
	Prostate	16,911,796
	Sarcoma	2,286,505
	Skin	5,300,000

Mechanism	Site	Amount
P50 SPOREs	Thyroid	2,136,667
r 30 3r OKES	Subtotal	\$109,314,128
	Breast	2,051,751
	Gastrointestinal (GI)	1,062,400
P20 SPOREs	Prostate	1,083,300
	Subtotal	\$4,197,451
LIE 4 CDODE-	Hyperactive RAS	\$2,102,055
U54 SPOREs	Subtotal	\$2,102,055
	Head & Neck	\$216,200
Co-funded	Total Co-funded	\$216,200
Total Number of SPOREs, Total SPOI	\$115,829,834	

## Dr. Ruth L. Kirschstein National Research Service Awards (NRSA)

This trainee award program is named after Dr. Ruth L. Kirschstein, a polio vaccine researcher and a champion of research training and inclusion of underrepresented individuals in the scientific workforce. Dr. Kirschstein was the first woman to become director of an NIH institute.

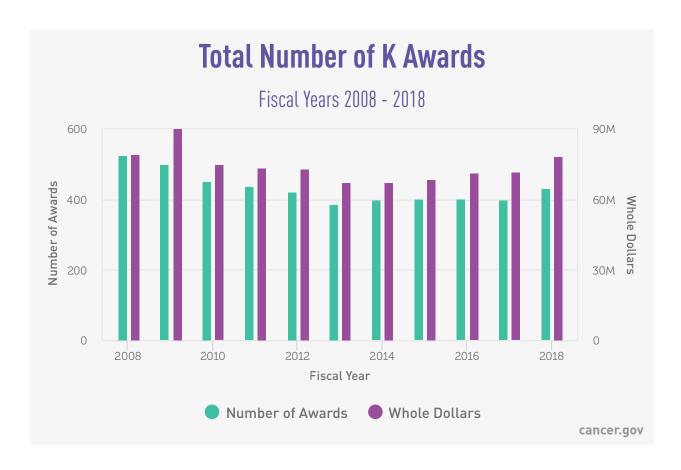
The NCI Ruth L. Kirschstein National Research Service Award (NRSA) program helps ensure that a diverse pool of highly trained scientists is available in appropriate scientific disciplines to meet the Nation's biomedical, behavioral, and clinical research needs.



Data for fiscal years 2014 and 2015 in previous editions of the NCI Budget Fact Book reported the total number of "Individual" and "Institutional" awards instead of the total number of Predoctoral and Postdoctoral full-time training positions. This table has been updated with the correct data.

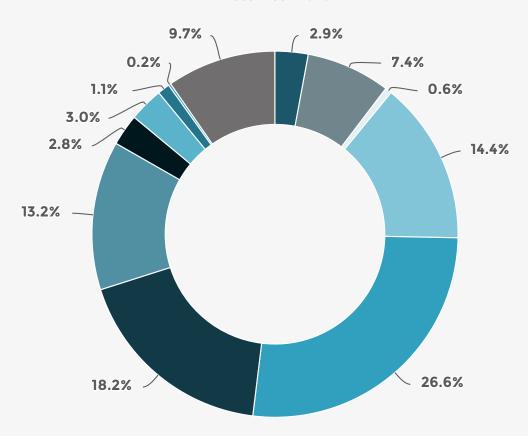
## Research Career Awards "K" Program

The NCI career development (K) awards program includes a broad range of funding mechanisms and provides scientists with support to further develop their cancer research careers, transition to independence, expand their existing research programs, or mentor junior investigators. The K awards are a significant component of NCI's training effort.









- K00 Post-Doc-Fellow Awards
- K01 Research Scientist Development Award
- K05 Research Scientist Award
- K07 Preventive Oncology
- K08 Clinical Investigator
- K12 Institutional Clinical Oncology Research
- K22 Transitional Career Development
- K23 Patient-Oriented Career
- K24 Patient-Oriented Career Mid Career
- K25 Mentored Quantitative Research Career Development Award
- K43 Mentored Career Devel/Temin Intl Career
- K99 NIH Pathway to Independence Awards

cancer.gov

#### **Grant and Contract Awards**

The following displays the number and dollar amount of grant and contract awards by state and country with details for institutions receiving more than \$15 million in support from NCI.

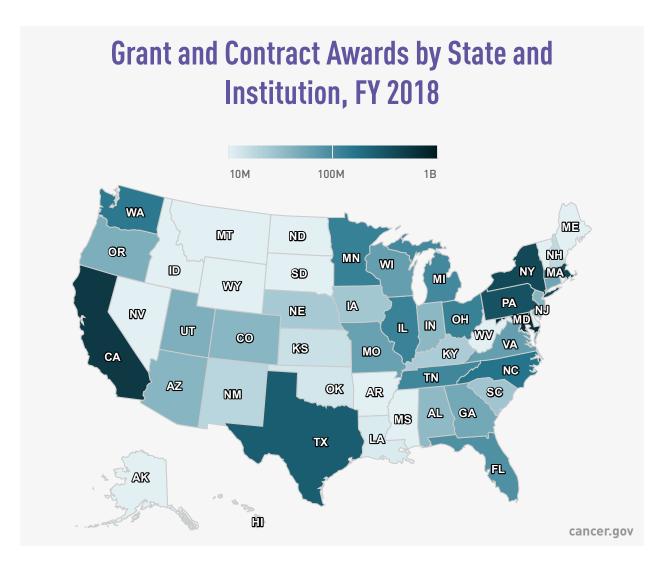
**Grants** are used when no substantial programmatic involvement is anticipated between the NCI and the grant recipient during performance of the financially assisted activities and when there is no expectation on the part of the NCI of a specified service or product for NCI.

**Contract** are used to procure cancer research services and other resources that the Federal government needs to advance the NCI cancer research mission.

Grant and contract data includes FY 2018 Cancer Moonshot funds and excludes FY 2017 Cancer Moonshot obligations, Breast Cancer Stamp, NRSA tap, the Loan Repayment Program, Program Evaluation, and other assessments. Per the National Institutes of Health's Office of Extramural Research (OER) "Count Rules" & guidelines policy are updated each fiscal year with limits based on the cost center and division. A "0" indicates an award funded by other NIH Institutes that NCI also co-funded.

## Grant and Contract Awards by State and Institution

In the map graphic below, grant and contract awards are presented by state. The table below the graphic provides information for U.S. territories. Within each state, hover to view the total amount awarded and click to view detailed data on institutions that received more than \$15 million in support from NCI during FY 2018. For purposes of the Fact Book, institutions include universities, cancer centers, and hospitals.



Other category represents total grant and contract funding in that state for all remaining organizations including universities, cancer centers, and hospitals who receive less than \$15 million in NCI support.

#### **GRANT AWARDS BY TERRITORY, FY 2018**

(Whole Dollars)

Country	No. of Grants	Amount for Grants	No. of Contracts	Amount for Contracts	Total Number	Total Amount
Guam	1	\$977,538	0	0	1	\$977,538
Puerto Rico	7	3,738,863	0	0	7	3,738,863

## **Grant and Contract Awards by Country**

NCI funds and co-funds cancer research all over the world. The table below lists number and dollar amount of grant and contract awards by country.

#### **GRANT AND CONTRACT AWARDS BY COUNTRY, FY 2018**

(Whole Dollars)

Country	No. of Grants	Amount for Grants	No. of Contracts	Amount for Contracts	Total Number	Total Amount
Argentina	2	\$686,921	0	0	2	\$686,921
Australia	3	2,797,382	0	0	3	2,797,382
Canada	11	5,560,228	1	810,970	12	6,371,198
Costa Rica	0	0	1	6,208,277	1	6,208,277
France	3	2,003,306	0	0	3	2,003,306
Germany	1	413,604	0	0	1	413,604
India	0	224,969	0	0	0	224, 969
Italy	0	0	1	25,000	1	25,000
Netherlands	1	224,924	0	0	1	224,924
Nigeria	0	159,124	0	0	0	159,124
Peru	0	224,955	0	0	0	224,955
Poland	0	0	1	157,967	1	157,967
South Africa	1	81,956	0	0	1	81,956
Sweden	2	634,524	0	0	2	634,524
Switzerland	1	517,615	0	0	1	517,615
United Kingdom	1	324,000	0	0	1	324,000

Country	No. of Grants	Amount for Grants	No. of Contracts	Amount for Contracts	Total Number	Total Amount
Zambia	0	80,028	0	0	0	80,028
Total	26	\$13,933,536	4	\$7,202,214	30	\$21,135,750

## **NCI Historical Trends**

Established in 1937, the National Cancer Institute (NCI) was among the first Institutes of the National Institutes of Health (NIH). From the outset, NCI served as a scientific cornerstone of the NIH. The following links provide information about the history of NCI appropriations and the Professional Judgment (Bypass) Budget, as well as data on funding trends and staffing levels.

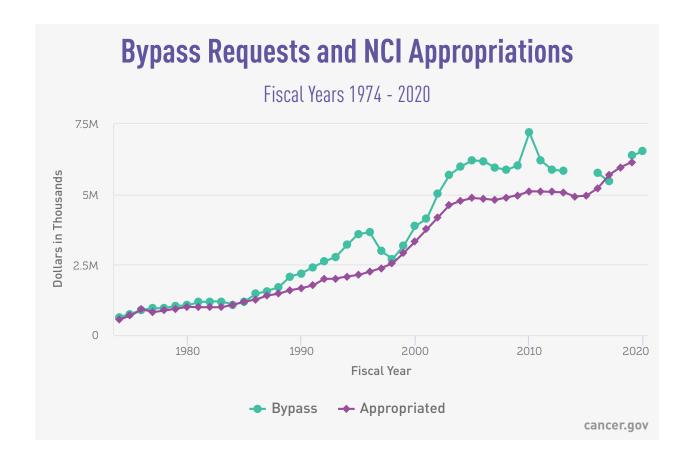
## **Bypass Budget Requests and NCI Appropriations**

This graph displays the Appropriations for the NCI from fiscal years 1974 through 2019. It also displays the Budget Requests, also known as Bypass Requests, from fiscal years 1974 through 2020.

The Bypass Budget Request was not released for FY 2014, FY 2015, and FY 2018.

The FY 2017 and FY 2018 Appropriated budget includes \$300,000,000 of Cancer Moonshot<sup>SM</sup> funding.

The FY 2019 Bypass budget includes \$400,000,000 of Cancer Moonshot<sup>SM</sup> funding. The FY 2020 Bypass budget includes \$195,000,000 of Cancer Moonshot<sup>SM</sup> funding.



## **NCI** Appropriations

NCI receives its budget from the United States Congress as part of the federal budget process for the Department of Health and Human Services and NIH.

The NCI budget for FY 2017 (October 1, 2016 through September 30, 2017) is \$5.68 billion. During the period from 2005 through 2015, the NCI budget averaged \$4.9 billion per year.

#### **APPROPRIATIONS OF THE NCI, 1938-2018**

(Whole Dollars)

Fiscal Years	Amount	Notes
1938 - 2002	\$52,940,982,220	
2003	4,622,394,000	Prior to reductions in PL 108-7(-\$30,046,000 for the enacted rescission and \$2,000 lapse). Includes \$263,442,000 of AIDS funding.
2004	4,770,519,000	Prior to reductions in PL 108-199(-\$3,136,000 for Labor/ HHS/ED rescission; \$28,128,000 for across the board reduction; -\$15,357,000 NIH 1% transfer assessment, and \$5,000 lapse). Includes \$266,975,000 of AIDS funding.
2005	4,865,525,000	Prior to reductions in PL 108-447(\$38,914,000 .8% across the board reduction; -\$1,353,000 for Labor/HHS/ED rescission; -\$30,505,000 NIH 1% transfer assessment, and \$9,000 lapse). Includes \$265,907,000 of AIDS funding.
2006	4,841,774,000	Prior to reductions in PL 109-149 (-\$48,418,000 for Labor/ HHS/ED rescission; -\$3,293,000 HHS transfer for CMS activities; -\$42,834,000 NIH 1% transfer for roadmap activities, and \$4,000 lapse). Includes \$253,866,000 of AIDS funding.
2007	4,797,639,000	Prior to reductions in PL 110-5 (-\$5,015,000 NIH transfer for GEI activities, and \$9,000 lapse). Includes \$253,866,000 of AIDS funding.

Fiscal Years	Amount	Notes
2008	4,890,525,000	Prior to -\$85,437,000 rescission and \$3,091,000 in NIH transfer activities. Includes supplemental appropriation of \$25,559,000. Includes \$258,499,000 of AIDS funding.
2009	4,968,973,000	Prior to reductions in PL 111-8 (-\$2,042,631 NIH transfer for activities, and \$4,000 lapse). Includes \$265,882,000 of AIDS funding.
2010	5,103,388,000	Prior to -\$760,000 HHS Secretary's transfer, -\$4,459,000 in NIH transfer for activities, and \$22,000 lapse. Includes \$272,130,000 of AIDS funding.
2011	5,103,388,000	Prior to -\$44,810,787 recission and \$472,000 lapse. Includes \$269,953,000 of AIDS funding.
2012	5,081,788,000	Prior to \$9,605,579 rescission, -\$1,445,000 HHS Secretary's transfer ,-\$3,342,000 HHS Secretary's transfer for Alzheimer's research, and \$54,000 lapse. Includes \$271,692,000 of AIDS funding.
2013	5,072,183,000	Prior to -\$254,589,000 under sequestration (Budget Control Act, 2011, PL 112–25), -\$10,144,367 recission, -\$28,044,000 HHS Secretary's transfer and +\$9,714,000 restored from the National Children's Study and National Eye Institute HIV/AIDS funding, and \$106,000 lapse. Includes \$261,550,000 of AIDS funding.
2014	4,923,238,000	Prior to -\$12,359,000 HHS Secretary's transfer,-\$965,000 HHS Secretary's Cybersecurity Transfer (authorized by section 206 of P.L. 113-76), +\$16,180,552 transfer from National Children's Study, and +\$6,307,000 transfer from NIH Office of AIDS Research, and \$33,000 lapse. Includes \$269,212,000 of AIDS funding.

Fiscal Years	Amount	Notes
2015	4,950,396,000	Prior to +\$2,632,000 transfer from NIH Office of AIDS Research and \$435,000 lapse. Includes \$269,660,000 of AIDS funding.
2016	5,214,701,000	Prior to -\$7,217,390 HHS Secretary's transfer, -\$1,192,000 transfer to NIH Office of AIDS Research, and \$122,000 lapse. Includes \$266,422,000 of AIDS funding.
2017	5,689,329,000	Prior to -\$11,971,000 HHS Secretary's transfer, -\$17,403,000 transfer to NIH Office of AIDS Research, and \$247,000 lapse. Includes \$249,019,000 of AIDS funding and \$300,000,000 of Cancer Moonshot <sup>SM</sup> funding.
2018	5,964,800,000	Prior to -\$13,309,000 HHS Secretary's transfer, -\$7,785,000 transfer to NIH Office of AIDS Research, and \$250,000 lapse. Includes \$241,234,000 of AIDS funding and \$300,000,000 of Cancer Moonshot <sup>SM</sup> funding.
1938 - 2018	\$133,801,542,220	

### **Professional Judgment (Bypass) Budget Requests**

The National Cancer Act of 1971 (P.L. 92-218) gives NCI special authority to submit an annual budget estimate directly to the President. Each year, NCI develops the Professional Judgment Budget, commonly known as the Bypass Budget, which reflects NCI cancer research priorities and identifies areas of potential investment in cancer research. NCI submitted its first Professional Judgment Budget, often referred to as the Bypass Budget, for the FY 1974 request.

The NCI Bypass Budget authority in section 407 of the National Cancer Act states:

The Director of the Institute in carrying out the National Cancer Program [shall] prepare and submit, directly to the President for review and transmittal to Congress, an annual budget estimate (including an estimate of the number and type of personnel needs for the Institute) for the National Cancer Program, after reasonable opportunity for comment (but without change) by the Secretary [of the Department of Health and Human Services], the Director of NIH, and the Institute's advisory council.

The table below shows Budget Requests during the past 10 years. To view previous Budget Requests, dating back to 1974, please download the data.

#### PROFESSIONAL JUDGMENT (BYPASS) BUDGET REQUESTS

Fiscal Years 2011-2020

(Whole Dollars)

Fiscal Year	Request
2020***	\$6,522,000,000
2019**	\$6,380,000,000
2018	*
2017	5,453,000,000
2016	5,754,000,000
2015	*
2014	*

Fiscal Year	Request
2013	5,833,010,000
2012	5,869,857,000
2011	6,199,666,000

<sup>\*</sup> The Bypass Budget Request was not released for FY 2014, FY 2015, and FY 2018.

<sup>\*\*</sup> Includes \$400,000,000 of FY 2019 Cancer Moonshot<sup>SM</sup> funding.

<sup>\*\*\*</sup> Includes \$195,000,000 of FY 2020 Cancer Moonshot<sup>SM</sup> funding.

## **NCI Funding Trends**

Funding amounts and percentages reflect actual obligations for each fiscal year.

#### **NCI FUNDING**

Funding, FY 2014-2018

(Dollars in Millions)

Mechanism	2014	2015	2016	2017**	2018**
Research Project Grants	2,012.6	2,092.6	2,146.1	2,278.4	2,450.6
Cancer Centers	281.8	288.7	335.0	313.0	331.4
SPOREs	104.6	102.7	108.2	111.4	115.8
Other P50s/P20s	18.2	5.8	2.8	1.3	-
Specialized Centers	139.2	112.3	99.3	135.6	178.3
Clinical Cooperative Groups	271.6	250.8	221.0	245.3	255.3
R&D Contracts	652.3	597.0	732.3	880.4	825.4
Intramural Research	845.1	843.2	894.5	899.7	945.5
Other Mechanisms*	607.0	659.6	666.9	771.2	825.3
Total NCI	\$4,932.4	\$4,952.6	\$5,206.2	\$5,636.4	\$5,927.7

<sup>\*</sup>Other mechanisms includes Research Career Program Cancer Education, Minority Biomedical Research Support, Other Grants, National Research Service Awards (NRSA), Research Management & Support, Buildings & Facilities.

<sup>\*</sup>Includes FY 2018 Cures-Moonshot funding.

<sup>\*</sup>Excludes FY 2017 Cures-Moonshot carryover obligations.

#### PERCENT CHANGE BY MECHANISM

Percent Change by Mechanism, FY 2013-2018

Mechanism	2013 to 2014	2014 to 2015	2015 to 2016	2016 to 2017	2017 to 2018
Total NCI	3.0%	0.4%	5.1%	8.3%	5.2%
Research Project Grants	0.6%	4.0%	2.6%	6.2%	7.6%
Cancer Centers	7.5%	2.4%	16.0%	-6.6%	5.9%
SPOREs	0.3%	-1.8%	5.4%	3.0%	3.9%
Other P50s/P20s	-15.2%	-68.1%	-51.5%	-52.6%	-100.0%
Specialized Centers	-4.6%	-19.3%	-11.6%	36.5%	31.5%
Clinical Cooperative Groups	15.4%	-7.7%	-11.9%	11.0%	4.1%
R&D Contracts	5.9%	-8.5%	22.7%	20.2%	-6.2%
Intramural Research	4.1%	-0.2%	6.1%	0.6%	5.1%
Other Mechanisms*	2.6%	8.7%	1.1%	15.6%	7.0%

<sup>\*</sup>Other mechanisms includes Research Career Program Cancer Education, Minority Biomedical Research Support, Other Grants, National Research Service Awards (NRSA), Research Management & Support, Buildings & Facilities.

### PERCENT SHARE OF TOTAL NCI DOLLARS

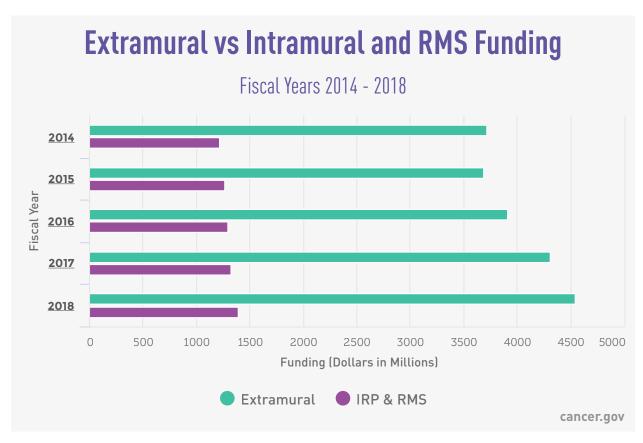
Mechanism Share of NCI Budget, FY 2014-2018

Mechanism	2014	2015	2016	2017	2018
Research Project Grants	40.8%	42.3%	41.2%	40.4%	41.3%
Cancer Centers	5.7%	5.8%	6.4%	5.6%	5.6%
SPOREs	2.1%	2.1%	2.1%	2.0%	2.0%
Other P50s/P20s	0.4%	0.1%	0.1%	0.0%	0.0%
Specialized Centers	2.8%	2.3%	1.9%	2.4%	3.0%
Clinical Cooperative Groups	5.5%	5.1%	4.2%	4.4%	4.3%
R&D Contracts	13.2%	12.1%	14.1%	15.6%	13.9%
Intramural Research	17.1%	17.0%	17.2%	16.0%	16.0%
Other Mechanisms*	12.3%	13.3%	12.8%	13.7%	13.9%

<sup>\*</sup>Other mechanisms includes Research Career Program Cancer Education, Minority Biomedical Research Support, Other Grants, National Research Service Awards (NRSA), Research Management & Support, Buildings & Facilities.

### **Extramural vs Intramural and RMS Funding**

The following is a comparison broken out by mechanism and total between Extramural dollars spent vs Intramural Research Program (IRP) and Research Management and Support (RMS).



Includes FY 2018 Cures-Moonshot funding.

Excludes FY 2017 Cures-Moonshot carryover obligations.

#### FY 2014-2018 TOTAL NCI FUNDING

(Dollars in Millions)

2014	2015	2016	2017	2018	2014-2018 % Change
\$4,932.4	\$4,952.6	\$5,206.2	\$5,636.4	\$5,927.7	20.2%

### FY 2014-2018 EXTRAMURAL FUNDING

(Dollars in Millions)

Mechanism	2014	2015	2016	2017	2018	2014- 2018 % Change
Research Project Grants	\$2,012.6	\$2,092.6	\$2,146.1	\$2,278.4	\$2450.6	21.8%
Cancer Centers	281.8	288.7	335.0	313.0	331.4	17.6%
SPOREs	104.6	102.7	108.2	111.4	115.8	10.7%
Other P50s/ P20s	18.2	5.8	2.8	1.3	0.0	-100.0%
Other Specialized Centers	139.2	112.3	99.3	135.6	178.3	28.1%
Other Research Grants	430.0	410.1	399.1	481.9	537.9	25.1%
NRSA	69.2	69.8	73.0	77.6	82.4	19.1%
R&D Contract	652.3	597.0	732.3	880.4	825.4	26.5%
Buildings & Facilities	8.0	8.0	16.0	30.0	18.0	125.0%
Total Extramural Funds	\$3,715.9	\$3,687.0	\$3,911.9	\$4,309.7	\$4,539.8	22.2%

### FY 2014-2018 INTRAMURAL AND RMS FUNDING

(Dollars in Millions)

Mechanism	2014	2015	2016	2017	2018	2014- 2018 % Change
Intramural Research	\$845.0	\$843.2	\$894.5	\$899.7	\$945.5	11.9%
RMS	371.4	422.5	399.8	427.0	442.4	19.1%
Total IRP & RMS Funds	\$1,216.5	\$1,265.6	\$1,294.3	\$1,326.7	\$1,387.9	20.2%

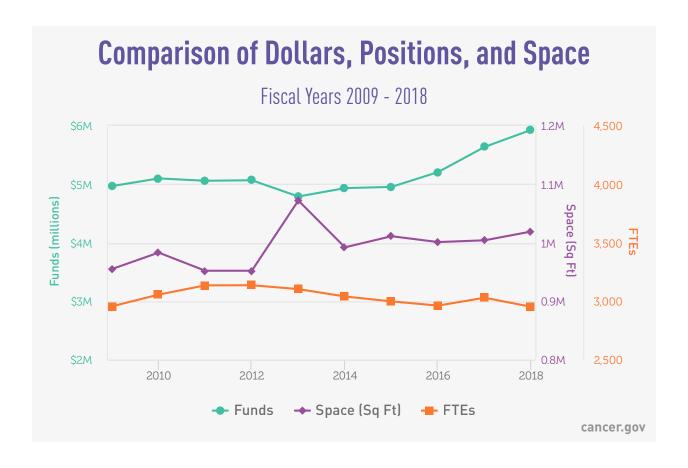
## Comparison of Dollars, Positions, and Space

This page presents tables comparing of NCI's budget, full-time equivalent (FTE) positions, and occupied space from fiscal years 2009 through 2018.

In this table, funds represent obligations against the annual appropriation in millions of dollars. FTEs are the number of work years for appointed employees of the NCI. A work year equals 2,080 hours. Space is in thousands of square feet, excluding NCI-Frederick.

The increase in space (Sq Ft) during FY 2013 is due to NCI's lease of its Shady Grove complex, a new consolidated facility in Rockville, MD. This facility has the advantage of providing additional space for NCI scientific programs, and includes conference and meeting rooms, a cafeteria and a data center that serves multiple NCI facilities. During FY 2013, NCI was working to decommission their vacated leased facilities, and continued to lease a portion of them while completing the decommissioning process.

The 2016 FTE count has been updated to include Commissioned Corps staff.



### **NCI** Personnel

The table below displays NCI-staffing levels, by type of appointment, for fiscal years 2009-2018.

- Full-time equivalents represent 2,080 hours per person employedFull-time and part-time appointments include employees from NIH Employment Report 71E
- Full-time and part-time appointments include employees from NIH Employment Report 71E
- Training Fellows including visiting fellows, Cancer Research Training Award (CRTA) and the few remaining Intramural Research Training Award (IRTA), biotech, and tech transfers
- Total employees include full-time and part-time permanent tours

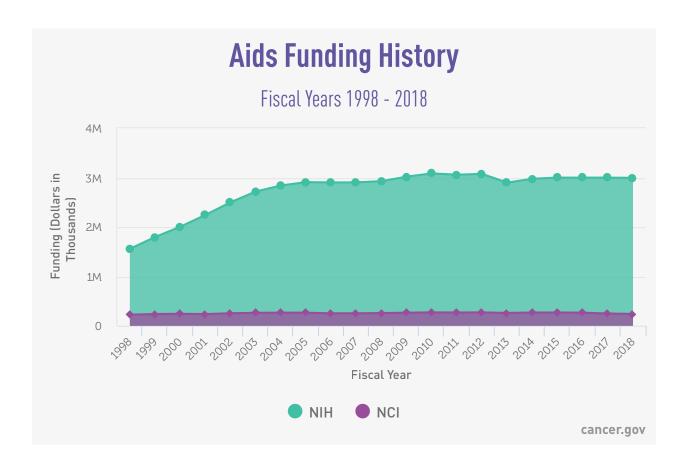
### NCI PERSONNEL, FY 2009-2018

Fiscal Year	Full Time Permanent	Other Than Full Time Permanent	Training Fellows	Total Personnel Resources
2009	2,118	959	1,058	4,135
2010	2,148	1,011	1,073	4,232
2011	2,180	1,029	1,108	4,317
2012	2,139	997	906	4,042
2013	2,173	948	847	3,968
2014	2,139	923	879	3,941
2015	2,119	897	947	3,963
2016	2,050	1,001	972	4,023
2017	2,156	890	1,042	4,088
2018	2,083	845	1,039	3,967

### **NCI and NIH AIDS Funding History**

The NCI has played a major role in HIV/AIDS research since the beginning of the AIDS epidemic. Scientists within and supported by the NCI have made a number of key discoveries. HIV/AIDS research is conducted throughout the Divisions and Offices of the NCI and is coordinated by the NCI Office of HIV and AIDS Malignancy.

In addition, because HIV/AIDS transcends every area of clinical medicine and basic scientific investigation, the NIH AIDS research effort involves every NIH Institute and Center. The NIH Office of AIDS Research has primary responsibility for planning and coordinating AIDS research across the NIH.



## Cancer Moonshot<sup>sM</sup> - Recent Fiscal Year Funding

The 21st Century Cures Act, which was signed into law in December 2016, authorized \$1.8 billion to fund the Cancer Moonshot over a 7-year period. The goals of the Cancer Moonshot is ambitious - to accelerate cancer research to achieve a decade's worth of cancer research progress in 5 years.

The following pages contain information on the \$300 million of Cancer Moonshot funding received during Fiscal Year 2018.

More information on Cancer Moonshot can be found by visiting the NCI Cancer Moonshot Initiative page.

Information on recent funding opportunity announcements can be found on the Cancer Moonshot Funding Opportunities page.

#### CANCER MOONSHOT FISCAL YEAR SUMMARY

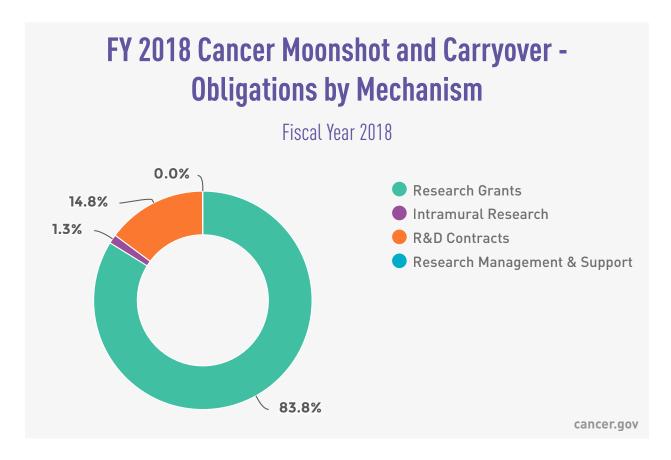
(Whole Dollars)

Fiscal Year	Authorization
2017	\$300,000,000
2018	\$300,000,000
2019	\$400,000,000
2020	\$195,000,000
2021	\$195,000,000
2022	\$194,000,000
2023	\$216,000,000
Total	\$1,800,000,000

Funding for the Cancer Moonshot is appropriated on an annual basis. The following pages contain information on the initial \$300 million of Cancer Moonshot funding received during Fiscal Year 2018.

# Cancer Moonshot<sup>SM</sup> - Obligations by Budget Mechanism

With \$300 million appropriated for Cancer Moonshot activities in fiscal year (FY) 2018, funding was allocated into four budget mechanisms: research grants, R&D contracts, intramural research, and research management and support, as shown in the chart below.



Similar to the institute's annual appropriation, NCI reports Cancer Moonshot obligations by funding mechanism.

## FY 2018 CANCER MOONSHOT AND CARRYOVER - OBLIGATIONS BY MECHANISM

(Whole Dollars)

Type of Mechanism	Mechanism	Number	Amount
	Competing	26	\$59,520,038
	Noncompeting	20	\$22,300,821
Research Project Grants (RPGs)	Administrative Supplements	31	\$4,421,709
(RPGS)	Subtotal, without SBIR	46	\$86,242,568
	SBIR/STTR Grants	7	\$4,367,647
	Subtotal, RPGs	53	\$90,610,215
	Cancer Centers Grants- P30s	0	\$10,954,951
Centers	Cooperative Agreements-U54s	11	\$61,079,470
	Subtotal, Centers	11	\$72,034,421
	Resource Grants-U24s	15	\$93,173,756
Other Research	Subtotal, Other Research	15	\$93,173,756
Subtotal, Research Grants		79	\$255,818,392
Intramural Research		0	\$4,034,821
Research Management & Support		0	\$45,222

### (Continued from previous page)

Type of Mechanism	Mechanism	Number	Amount
	R&D Contracts	7	\$38,802,916
R&D Contracts	SBIR/STTR Contracts	21	\$6,410,821
	Subtotal, R&D Contracts	28	\$45,213,737
Total			\$305,112,172
Includes FY 2017 Cures-Moonshot Carryover obligations.			

## Cancer Moonshot<sup>SM</sup> - Funding by Research Category

To ensure the Cancer Moonshot goals and approaches were grounded in the best science, NCI convened a Blue Ribbon Panel (BRP) of scientific experts as a working group to the National Cancer Advisory board. In September of 2016, the BRP presented a final report outlining 10 research recommendations that represent areas that are well-positioned to accelerate progress in cancer prevention, diagnosis, treatment and care.

The following research categories align with these 10 recommendations:

### **CANCER MOONSHOT BY CATEGORY, FY 2018**

(Whole Dollars)

Research Category	Amount
Network for Direct Patient Engagement	\$864,531
Cancer Immunotherapy Translational Science Network	\$67,643,470
Therapeutic Target Identification to Overcome Drug Resistance	\$4,005,166
A National Cancer Data Ecosystem for Sharing and Analysis	\$9,557,020
Fusion Oncoproteins in Childhood Cancers	\$37,358,770
Minimize Cancer Treatment's Debilitating Side Effects	\$32,162,876
Prevention and early detection: Implementation of Evidence-Based Approaches	\$32,547,322
Retrospective Analysis of Biospecimens form Patients Treated with Standard of Care	\$8,370,414
Generation of Human Tumor Atlases	\$74,246,242
Development of New Enabling Cancer Technologies	\$38,356,361

### (Continued from previous page)

Research Category	Amount
Other Cancer Moonshot priority activities (e.g., Partnership for Accelerating Cancer Therapies)	_
Total	\$305,112,172



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